FEMP Monthly Update

AUGUST 2005

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The ***FEMP MONTHLY UPDATE*** is prepared expressly for the Department of Energy's Office of Federal Energy Management Programs (FEMP). The purpose of the ***UPDATE*** is to provide FEMP management staff with timely information on topics relevant to the program. This includes the status of pending Federal and state legislation and summaries of public and private sector energy-related activities. The ***FEMP MONTHLY UPDATE*** is prepared for

DOE BULLETIN BOARD

***Short-Term Energy Outlook*, Energy Information Administration (EIA), August 2005**

Hot weather for June, July, and August in the United States has raised energy prices, and hurricanes in the peak season of August to October threaten more increases. Regular grade gasoline averaged $2.37 per gallon nationally on August 8, higher than the previous month's $2.33. On-highway diesel fuel followed a similar pattern, and remains at 4 cents per gallon greater than regular gasoline. Additionally, due to provisions in the *Energy Policy Act of 2005*, MTBE (methyl tertiary-butyl ether) may be replaced by ethanol or other high-quality components causing transition pressure on gasoline prices. The West Texas Intermediate crude oil price averaged $59 per barrel for the third quarter of 2005, approximately $15 per barrel more than one year ago. Worldwide oil-demand growth from 2004 to 2006 is expected to increase by 2.1 percent and to average 1.8 million barrels per day (a downward revision after a re-assessment of China's growth). The oil market continues to be tight with the lowest spare production capacity in three decades, geo-political risk from Iraq and possibly Nigeria and Venezuela, and unchanging production growth, refining and shipping.

Natural gas is affected by the heat and hurricanes too, and holds a high average 2005 annual price of $7.63 per thousand cubic feet (mcf), but in 2006, demand is predicted to fall to $7.37 mcf. Natural gas storage is above the five-year average with prices remaining high due to high oil prices, a strong economy, anticipation of low annual output of Pacific Northwest Resources, limited domestic gas production, and potential hurricanes. Electricity demand is expected to grow 2.7 percent in 2005, with direct influence of weather factors. Domestic coal production is projected to grow by 1.4 percent in 2005, and up to 2.7 percent in 2006. Hydroelectric power recovery to normal is not expected until 2006.

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CONGRESSIONAL ACTIVITIES

CONGRESSIONAL SCHEDULE

Congress is in recess throughout the month of August and will return following the Labor Day Holiday. No House or Senate hearings or related events of interest have been scheduled.

STATUS OF PENDING APPROPRIATIONS BILLS OF INTEREST TO FEMP

To date, the House has passed all 11 of its annual appropriations bills. The Senate has passed five of its 12 bills, including four of interest to FEMP:

- Energy and Water Development (S. Rept. 109-84)
- Homeland Security (S. Rept. 109-93)
- Interior and Environment (S. Rept. 109-80)

At the full committee level, the Senate has approved the following bills:

- Agriculture, Rural Development, and Food and Drug Administration (S. Rept. 109-92)
- Science, State, Justice, and Commerce (S. Rept. 109-88)
- Labor, Health and Human Services, and Education (S. Rept. 109-103)
- Military Construction and Veterans' Affairs (no report number)
- Transportation, Treasury, Judiciary, and Housing and Urban Development (Rept. 109-109)

No schedule has been announced for House – Senate Conference Committee meetings or Senate votes on pending bills.

STATUS OF PENDING AUTHORIZATION BILLS OF INTEREST TO FEMP

- Refer to Appendix A for a summary of the Federal Energy Management provisions included in the *Energy Policy Act of 2005*.

- Refer to Appendix B for New Legislation of Interest to FEMP.

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FEDERAL AGENCY ACTIVITIES

DEPARTMENT OF DEFENSE (DOD)

Defense Supply Center Richmond's (DSCR) Environmental Management System (EMS) was awarded the 2005 White House Closing the Circle Award for its success in achieving efficiency in the areas of **sustainable buildings, green product purchasing, alternative fuels**, environment management systems, pollution prevention, and recycling. DSCR partnered with local governments and stakeholders in the development of their EMS; the collaboration demonstrates how a Federal facility and the community can work together to obtain energy savings. To comply with an executive order calling for the establishment of an EMS, DSCR solicited and integrated stakeholders' suggestions in building its EMS. Jimmy Parrish, EMS Manager, said "One of the most commonly recognized benefits of DSCR's EMS has been the positive interaction between stakeholders and local governments." The partnership includes civilian and non-civilian members, including the Virginia Army National Guard, Marine Base Quantico, city governments, and the private sector. DSCR's EMS is now being used throughout DOD and in other Federal agencies.

A new photovoltaic system on O'ahu, Hawaii will provide seven megawatts of energy to a power grid serving Army and Coast Guard barracks, thereby reducing energy consumption by 15 percent for 7,894 new and renovated homes. The barracks served include Wheeler Army Airfield, Helemano Military Reservation, Schofield Barracks, Aliamanu Military Reservation, Fort Shafter, and Tripler Army Medical Center. The project, believed to be the largest of its kind in the world, includes energy efficiency measures such as solar-paneled water heaters and laminated photovoltaic systems that will capture the sun's energy and convert it to alternating current. Actus, the company installing the system, estimates a 10-year payback for the project. Other energy-saving measures include double-glazed, insulated windows; roof vents that release heat; and low-flow faucets, showers, and toilets. Source: http://the.honoluluadvertiser.com/article/2005/Aug/03/bz/508030328.html.

DOD's renovation of the Pentagon includes the installation of energy efficiency measures that will save 40 percent of its average monthly $1.1 million electric bill. Energy saving features at the 6.6 million square foot building include insulated windows and advanced energy control systems. Measures that reduce load include:

- Electronic control systems to monitor heat and air conditioning usage and electricity and water consumption; programmable shades that can be raised and lowered with the sun;

air conditioners that can be switched on automatically early in the morning to avoid an expensive spike in electricity use during the day, or programmed to run on a staggered basis to keep demand as consistent as possible; and elevators designed to hover around the busiest floors, rather than returning immediately to the lobby.

- Modern central heating and an energy control system to cut energy costs by 5 to 15 percent.
- Computer and web-based information systems that generate reminders to signal an air conditioning filter change or perform maintenance.
- Devices that monitor the vibrations in a piece of large equipment and predict how long it's going to last.
- Remote temperature control.

(Source: *National Real Estate Investor*, August 1, 2005)

DEPARTMENT OF ENERGY (DOE)

On August 14, the second anniversary of the Northeast's electricity blackout, Secretary of Energy Sam Bodman observed government and industry's significant progress to ensure a reliable electric grid. Preventive actions taken since an initial report was published in April 2004 include:

- Enactment of the *Energy Policy Act of 2005*, which mandates and enforces electric utility compliance with reliability standards
- Establishment of a Federal Energy Regulatory Commission (FERC) Division of Electric Reliability
- Revision of the North American Electric Reliability Council's (NERC) existing reliability standards to clarify compliance requirements
- Establishment of reliability standards in new areas, including tree growth management, operator training, and real-time diagnostic tools
- Establishment of a NERC program to verify proper training of grid managers
- Establishment of guidelines for reporting and disclosure of violations
- Establishment of sensors or interstate networks to provide grid operators with early warning of potentially dangerous grid situations
- Establishment of a group comprised of representatives from DOE, FERC, and Canadian agencies to provide guidance and direction to NERC and the Electric Reliability Organization created by the *Energy Policy Act of 2005.*

DOE NATIONAL LABORATORY ACTIVITIES

The National Renewable Energy Laboratory (NREL) wind turbine design codes, which are used to calculate onshore wind turbine loads, have been adopted for use as an

internationally accepted code for turbine certification. U.S. wind turbine manufacturers have long used the design codes—FAST and ADAMS—but until recently the codes were not accepted by certifying agencies in Europe. Prior to their adoption of FAST and ADAMS, European certifying agents had to have manufacturers re-evaluate designs using European codes, which increased the costs in certifying turbines. For more information, visit NREL's National Wind Technology Center's web site at http://wind.nrel.gov/designcodes.

Federal fleet managers are utilizing a new software tool to compare the costs and emissions of hybrid electric vehicles (HEVs) to conventional vehicles. The Hybrid Electric Vehicle Fleet Cost and Benefits Calculator Tool assesses purchase price, fuel costs, repair and maintenance costs, resale value, and tax incentives. A comparison of a compact hybrid sport utility vehicle to a conventional compact sport utility vehicle revealed a savings over seven years of more than $1,400 and 37,000 pounds of carbon dioxide. DOE's Office of Energy Efficiency and Renewable Energy's Clean Cities Program provided funding to NREL, the Center for a New American Dream, and the American Council for an Energy Efficient Economy to develop the tool, which can be accessed at http//www.eere.energy.gov/cleancities/hev/cost_calc.html. A cost comparison tool for alternative fuel vehicles can be accessed at http//www.eere.energy.gov/afdc.

The Pacific Northwest National Laboratory (PNNL), in collaboration with lighting manufacturers, is working to improve the efficiency of "downlights." Downlights, one of the most inefficient types of lighting today, are also the most popular form of residential lighting; an estimated 400 million are installed in homes in the United States. Most downlights use inefficient, incandescent bulbs, which increase the level of heat in a room, adding to air conditioning loads. Downlights also allow heated or cooled air to escape into attic spaces. PNNL researchers are working with manufacturers to improve the performance of reflector-type CFL replacement lamps and to redesign fixtures that are wired for CFLs. Jeff McCullough, a Senior Research Engineer at PNNL said, "The widespread use of recessed cans and their inefficiency means there is a huge opportunity to reduce energy use and operating costs by using efficient compact fluorescent lamps and redesigning fixtures…Use of CFLs alone could cut the number of watts each fixture uses by two-thirds." The State of California has revised building codes to limit the installation of these incandescent recessed fixtures. More information is available at http//www.pnl.gov/cfldownlights/index.html.

DEPARTMENT OF INTERIOR (DOI)

The U.S. Forest Service is considering an application by Deerfield Wind to install 30 turbines in the State of Vermont. The agency's review will take into consideration guidance issued last month by the Department of Interior's Bureau of Land Management, which outlined a set of policies to govern wind power development in the western region of the U.S. The wind farm would be the first to be constructed in a U.S. National Forest. (Source: *Refocus Weekly*, August 3, 2005)

ENVIRONMENTAL PROTECTION AGENCY (EPA)

No activities of interest to report.

FEDERAL ENERGY REGULATORY COMMISSION (FERC)

Provisions included in the recently enacted *Energy Policy Act of 2005* bring about the most significant changes in FERC's responsibilities in 70 years, according to Federal Energy Regulatory Commission Chairman Joseph T. Kelliher. "The energy bill represents the most

significant policy changes for FERC since the *Federal Power Act of 1935* and the *Natural Gas Act of 1938*…Clearly this new law establishes significant new responsibilities for the Commission." Major new responsibilities include:

- Finalizing rules to establish a framework of mandatory power-grid reliability rules.
- Assuming new "backstop authority" to site power transmission facilities in "national interest electric transmission corridors."
- Establishing rules regarding permit applications for transmission facilities and long-term transmission rights, and offering incentives to promote investment.
- Concluding its investigation of the California electricity crisis, ensuring that refunds owed to California are paid, and submitting a report that outlines further action.
- Issuing a report to Congress outlining steps to be taken to make real-time information available on the functional status of transmission lines.
- Establishing rules to ensure reliability and reduce delivery costs by reducing transmission congestion.
- Publishing an annual report that assesses demand response resources by region.
- Submitting a final report to Congress on competition within electric energy wholesale and retail markets (as conducted by a five-member, inter-agency task force [Electric Energy Market Competition Task Force]).
- Issuing a report on the benefits of cogeneration and small power production.

For more information, visit http//www.ferc.gov.

GENERAL SERVICES ADMINISTRATION (GSA)

On August 4, GSA Administrator Stephen Perry announced a reorganization of the agency's Federal Technology Service (FTS) and Federal Supply Service (FSS) into the Federal Acquisition Service (FAS). The reorganization is based on input from GSA employees, customer agencies, industry contractors, and others. Among the five national program offices that constitute the new office (Customer Accounts and Research; Acquisition Management; Integrated Technology Services; General Supplies and Services; and Travel, Motor Vehicles and Card Services), the new Acquisition Management office will ensure that GSA's activities are compliant with Federal laws and regulations, and that operations are consistent across regions. The reorganization will include six offices within 11 GSA regions and include

- Zone A: New England Region
  Northeast & Caribbean Region
- Zone B: Mid-Atlantic Region
  National Capital Region
- Zone C: Southeast-Sunbelt Region
  Great Lakes Region

- Zone D: Greater Southwest Region
- Zone E: Heartland Region
  Rocky Mountain Region
- Zone F: Pacific Rim Region
  Northwest/Arctic Region

In his announcement, Administrator Perry said, "This reorganization is a very important part of the overall effort to improve the Federal acquisition process and it will significantly improve GSA's effectiveness in meeting the increasing requirements of Federal agencies for excellent acquisition services." For more information, visit http//www.gsa.gov/fas.

STATE AND LOCAL GOVERNMENT ACTIVITIES

CENTRAL REGION

State or Local Government	Activity
• Texas	• Governor Perry (R) of Texas signed Senate Bill 20 into law on August 1st. The purpose of the bill is to increase the production of clean energy, such as wind, biomass, and solar power, in the state. The bill also requires that approximately five percent of the state's energy comes from renewable resources by 2015 and ten percent by 2025. (Source: *Amarillo Globe News*, August 2, 2005)
• Montana	• Montana has adopted a law requiring its public utilities to draw on renewable energy for 15 percent of their power by 2015. The law also requires 150 megawatts of renewable energy to be customer-sited. A separate law will require nearly all gasoline in the state to be blended with ethanol. (Source: Power Marketing Association, July 2005)
• Colorado	• Governor Bill Owens (R-Colorado) announced on August 17 that the Colorado Partnership for Biomass Utilization, Education, and Bioenergy Production has received a $100,000 grant from the Western Governor's Association. The grant will be used to help increase the use of bioenergy and to reduce excessive build up of forest fuels. (Source: Power Marketers Association, August 17, 2005)

MID-ATLANTIC REGION

State or Local Government	Activity
• Maryland	• Fort Detrick is in the early planning stages of obtaining a co-generation utility plant on post, which officials hope will meet the growing power needs of the rapidly expanding facility. The plant will be built on a ten-acre site near the proposed National Interagency BioDefense Campus. Plans are expected to be finalized in 2006. The plant could be in operation by the summer of 2007. (Source: Power Marketers Association, August 4, 2005)

MIDWEST REGION

State or Local Government	Activity
• Wisconsin	• A July 20 Wisconsin Public Service Commission (PSC) decision could be considered an important ruling for the future of energy policy in Wisconsin. With this decision, Wisconsin became the first state in the U.S. to take the step of recognizing utility investments in energy efficiency as equivalent to investments in new power generation. (Source: *Energy Pulse*, August 15, 2005)
• Wisconsin	• On August 18, Wisconsin Governor Jim Doyle (D) unveiled "Conserve Wisconsin," legislation and executive orders to help protect the environment and spur economic growth. The new initiative will focus on three key issues: protecting the waters, conserving the lands, and "ensuring a sustainable energy future." (Source: Department of Energy, August 26, 2005)
• Illinois	• The Illinois Commerce Commission (ICC) recently adopted Governor Blagojevich's (D) Sustainable Energy Plan. Issued in July, the ICC resolution reflects the Governor's proposal calling for both a Renewable Energy and Energy Efficiency Portfolio Standard. (Source: Department of Energy, July 21, 2005)

NORTHEAST REGION

State or Local Government	Activity
• New York	• Governor George E. Pataki (R) has signed into law two bills to promote the use of solar energy in New York State by offering homeowners tax incentives to reduce the net cost of solar installation. (Source: SolarBuzz.com, August 2, 2005)
• Northeast Region	• The Northeast Regional Office of the Department of Energy joined with 22 other state and Federal agency commissioners, administrators, and directors throughout the region in signing a joint resolution to encourage all citizens to "Save a Watt and Save a Lot to Conserve Energy and Prevent Pollution." The initiative was coordinated by the Northeast Waste Management Officials' Association. (Source: Department of Energy, August 21, 2005)
• Vermont	• Through 2011, Vermont is requiring the state's electricity providers to meet any growth in demand with renewable energy, either by developing new facilities or by buying renewable energy credits. Meanwhile, Iowa has extended its production tax credit program to include biomass and solar energy. (Source: Power Marketing Association, July 2005)

SOUTHEAST REGION

State or Local Government	Activity
• Georgia	• In early August, the DeKalb County Board of Commissioners voted in favor of the development of a new Landfill Gas Generation plant at the Seminole Road facility. It also approved a ten-year contract to sell the energy to Georgia Power. The utility will offer the energy to its customers as part of its voluntary Green Energy Program. (Source: Power Marketers Association, August 4, 2005)

WESTERN REGION

State or Local Government	Activity
• California	• The Los Angeles Department of Water and Power Board of Commissioners approved two long-term purchase agreements to buy 81,843 megawatt-hours of renewable energy (enough to power almost 10,000 homes) generated by facilities that use landfill gas-to-energy technology. The contracts will be effective upon approval of the city council. (Source: Power Online, August 23, 2005)
• California	• Los Angeles Mayor Antonio Villaraigosa (D) has nominated a new set of commissioners to oversee the Department of Water and Power. Villaraigosa called for the department to follow the example of regulated utilities in the state by requiring that 20 percent of power should come from renewable resources by 2010. (Source: *Greenwire*, August 23, 2005)
• California	• On June 2, 2005, the California Senate passed legislation to provide financial incentives for installing solar panels on the roofs of homes and businesses (Source: Power Marketing Association, June 2, 2005)

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UTILITIES AND SUPPLIER ACTIVITIES

GENERAL ANNOUNCEMENTS

Rate Changes	Restructuring and Public Benefits
• *No news of interest to report.*	• Select Energy has signed a three-year contract with the Department of Defense Logistics Agency, to supply natural gas to Defense Energy Support Center facilities in Massachusetts, Pennsylvania, Rhode Island, and New Hampshire. (Source: Power Marketers Association, August 4, 2005)

CENTRAL REGION

Rate Changes	Restructuring and Public Benefits
• The Wyoming Public Service Commission has approved a natural gas rate increases ranging from five to 14 percent for Kinder Morgan customers, due to higher than expected costs for natural gas. (Source: Power Marketing Association, July 2005)	• Kansas City Power and Light, a subsidiary of Great Plains Energy, announced on August 11 that it has begun implementation of its comprehensive long-term energy plans, which has received unanimous approval from both the Missouri Public Service Commission and the Kansas Corporation Commission. The five-year, $1.3 billion plan is designed to address the region's growing need for affordable, reliable energy while meeting increasingly stringent environmental regulations. (Source: Power Marketers Association, August 11, 2005)

Rate Changes	Restructuring and Public Benefits
	• Green Mountain Energy Company is offering a renewable power plan comparable to the rates of TXU, the Dallas area's incumbent provider. The plan is a mix of hydroelectricity and wind power. (Source: Power Marketing Association, June 2005)
	• Direct Energy recently announced it now offers consumers a partial renewable energy plan. The Clean Texas Plan™ is 50 percent renewable and is one of two new renewable energy plans Direct Energy is currently launching; the program offers two percent guaranteed savings off the current price-to-beat rate, which on August 23 was listed as 12.54 cents per kilowatts hour. (Source: DirectEnergy.com, August 25, 2005)

MID-ATLANTIC REGION

Rate Changes	Restructuring and Public Benefits
• Customers of Allentown, Pennsylvania, area utility PPL will soon see an increase of about eight percent in their electric utility bills. The average monthly bill for customers with electric heat will increase by $9.03. (Source: Power Marketing Association, July 2005)	• The State Corporation Commission has set a public hearing for January 24 on Virginia Natural Gas Incorporated's (VNG) proposals for either a performance-based rate plan or a general increase. VNG asked the commission to be allowed to freeze its rates for the next five years, while being allowed to earn more than it could under traditional cost-of-service -based regulation if it can cut costs and operate more efficiently. (Source: Power Marketers Association, August 4, 2005)

MIDWEST REGION

Rate Changes	Restructuring and Public Benefits
• FirstEnergy Corporation's Ohio electric utility companies filed a request with the state's Public Utilities Commission on May 27 to establish a generation charge adjustment rider, as permitted under the previously approved Rate Stabilization Plan. The rider would be reconciled with actual costs for the year, which may result as a credit in 2007. (Source: Power Marketing Association, July 2005)	• On June 30, Great River Energy filed its Integrated Resource Plan with the Minnesota Public Utilities Commission. The plan, which analyzes the future electricity needs of Great River Energy's 28-member cooperative, identifies the need to add approximately 1200-1400 megawatts of capacity over the next ten years to satisfy an increase in member demand. (Source: Power Marketers Association, August 4, 2005)

NORTHEAST REGION

Rate Changes	Restructuring and Public Benefits
• Niagara Mohawk is seeking a three percent rate increase in each of the next two years to cover pension and retiree health care costs in what would	• *No news of interest to report.*

Rate Changes	Restructuring and Public Benefits
be its first rate hike in more than a decade. The proposed increase, which still needs approval from state regulators, would add about $2 per month to the average residential customer's bill at the beginning of 2006, and another $2 per month at the beginning of 2007. (Source: Power Marketers Association, August 4, 2005)	
• The Jamestown, New York Board of Public Utilities has reached an agreement with the state Public Service Commission staff on a proposal to increase electric rates in the Jamestown service area by approximately 25 percent. (Source: Power Marketing Association, June 2005)	

SOUTHEAST REGION

Rate Changes	Restructuring and Public Benefits
• Florida Power and Light Company (FPL) dropped its request for a $430 million rate increase that would have raised rates for the company's 4.3 million customers in 35 counties. In return, FPL will be able to ask for a rate increase to cover the cost of new power plants. The company was seeking a 12.3 percent return rate in its original petition, the first base rate increase since 1995. (Source: Power Marketers Association, August 17, 2005)	• Georgia's first renewable energy program, "Green Power EMC," was recently expanded to include 11 new members increasing the total to 28 electric cooperative members in Georgia - offering green energy to approximately 1.2 million households. Created in 2001, Green Power EMC was originally a joint effort of 17 Georgia cooperatives. (Source: Power Marketers Association, August 24, 2005)
• The Tennessee Valley Authority's (TVA) Board of Directors approved a 7.52 increase in electric rates, citing higher costs the utility pays for fuel power to supplement its system. The increase will be effective October 1 and was approved by TVA's Chairman Bill Baxter and Director Skila Harris during a board meeting. The rate increase will raise $524 million during the 2006 fiscal year. (Source: Power Marketers Association, August 4th, 2005)	• Warren Rural Electric Cooperative Corporation and East Kentucky Power Cooperative are waiting for approval from the Kentucky Public Service Commission and compliance with the *National Environmental Protection Act* to build new and upgrade some existing power lines to connect the two systems. An upcoming meeting, planned for August 30 will allow landowners in the area to express concerns and question the proposed corridors for the new lines. (Source: Power Marketers Association, July 2005)

Rate Changes	Restructuring and Public Benefits
• PSNC, the largest Durham, North Carolina, natural gas provider is increasing its residential rates by 13.4 percent to $1.27 per therm. The increase, tied to rising costs of natural gas, will increase an average monthly bill approximately $15. (Source: Power Marketing Association, July 2005)	• Southern Company and the Georgia Institute of Technology announced on May 24 a plan to collaborate on the Southeast's first offshore wind power project, to be located off the coast of Savannah, Georgia. The wind project is expected to include three to five wind turbines with a total generating capacity of approximately 10 megawatts. Southern Company is an electric utility serving most of Georgia and Alabama, southeastern Mississippi, and the Florida panhandle. (Source: Department of Energy, August 19, 2005)
• South Carolina Electric and Gas Company raised residential electric rates by 4.44 percent. The new rates will result in a monthly increase of $3.93 for residential customers. (Source: Power Marketing Association, July 2005)	

WESTERN REGION

Rate Changes	Restructuring and Public Benefits
• *No news of interest to report.*	• Pacific Gas and Electric Company recently launched a selection of new and upgraded online services, making it convenient for customers to request services, manage their bills, and analyze energy use. The "E-Bills" online billing and payment service features instant access to billing history, as well as the ability to receive bills by e-mail and set up automatic payments. (Source: Electric Energy Online, June 2005)
	• Sierra Pacific Resources has announced that its two Nevada-based utility subsidiaries, Nevada Power Company and Sierra Pacific Power Company, have issued a Request for Proposals for energy and credits generated by renewable energy fuel sources. Sierra Pacific Resources is seeking renewable proposals totaling approximately 200 megawatts of wind, geothermal, biomass, and 70 megawatts of solar. (Source: Power Marketers Association, June 2005)
	• Sierra Pacific Resources' two electric utilities recently filed a plan with regulators outlining how the utility plans to comply with a state law setting minimum use standards for renewable power. (Source: *ReviewJournal*.com, August 2, 2005)
	• Southern California Edison and the March Joint Powers Authority announced a long-term deal to bring electricity to a portion of March Air Reserve Base, which was closed by the Pentagon almost ten years ago. The deal calls for Edison to provide $26 million in improvements over the next ten years to the outdated power system. (Source: Power Marketers Association, August 17, 2005)

Rate Changes	Restructuring and Public Benefits
	• Southern California Edison signed a 20-year power purchase agreement with Stirling Energy Systems in mid-August to build a 4,500-acre solar energy facility that would produce 500 megawatts. (Source: *Contra Costa Times*, August 14, 2005)
	• In early August, Pacific Gas and Electric Company announced it had issued a Request for Offers to solicit renewable energy on behalf of its five million electric customers, marking the company's third renewable energy solicitation pursuant to the State of California Renewable Portfolio Standard. The utility currently supplies 31 percent of its customer load from renewable resources. (Source: Power Marketers Association, August 5, 2005)

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PRIVATE SECTOR

GENERAL ANNOUNCEMENTS

The U.S. Green Building Council (USGBC) announced that 20,000 building industry professionals have earned LEED (Leadership in Energy and Environmental Design) **Professional Accreditation**. The organization has **submitted an application to the American National Standards Institute (ANSI)** for accreditation as a national standards developer for standards related to green building practices. USGBC has launched a **one year, pilot demonstration of LEED for Homes Rating System,** designed to recognize the top 25 percent of green home builders in terms of environmentally sound construction. A newly released **LEED-NC (New Construction) application guide for retail pilot test** is a rating system that will meet the needs of the retail market by providing tailored credit language and alternative compliance paths as required. **USGBC has also released two updated guides: LEED-CI** (Commercial Interiors) Version 2.0 Reference Guide and **LEED-EB** (Existing Buildings) Version 2.0 Reference Guide. For more information see http://www.usgbc.org.

CENTRAL REGION

Building	Stage/Certification	Cost/End-Use	Energy Features
Medical Center of the Rockies of Poudre Valley Health System, Loveland, CO	• To open in 2007 • Applied to USGBC to be test site for new certification guidelines for green hospitals • Expects LEED-Commercial Building (CB)	Hospital	• Xeriscaping • Energy-efficient heating, ventilation and cooling system • Bicycle storage and changing rooms • Anticipate 35-40% energy savings

Building	Stage/Certification	Cost/End-Use	Energy Features
Wal-Mart Super Center, near Dallas, TX	Operational	Retail outlet	• 10 acres store • 7,500 sq ft of crystalline and thin-film solar panels by RWE SCHOTT solar cover store; will generate 48,000 kWh/year • Two small wind turbines • A bio-fuel boiler to recycle and burn recovered oil • Other energy saving and sustainable design features
PNM Resources, Albuquerque, NM	• Seeking LEED certification • Under construction	• Energy Services Company building for 50 staff • Expect LEED process to add 3.5% cost	• Will use 30% less energy for heating, cooling and lighting; and 60% less potable water (compared to a standard commercial building) • 78% of building illuminated with natural light • Designed by Claudio Vigil Architects
Phi Kappa Psi's house, University of Colorado, Boulder, CO	• Will be completed in August	• University housing • $1.4 million for entire project (3 buildings)	• 12-bedrooms and president's suite; 9,269 sq ft • Resource-efficient plumbing • Dimmers and occupancy sensors • Energy Star® appliances • Designed by PEH Architects

MID-ATLANTIC REGION

Building	Stage/Certification	Cost/End-Use	Energy Features
Whole Foods, Windsor Green Shopping Center, Princeton, NJ	Operational	• Supermarket • New Jersey Board of Public Utilities (BPU), the Clean Energy Program provides $515,000 rebate	Solar Array: • 126.7-kW BP Solar rooftop array • Provides 15% energy needs • Covers 12,500 sq ft
Maverick Landing housing development, East Boston, MA	Anticipate LEED certification	• Housing Development • Partial funding by The Green Affordable Housing Program (program has $8.5 million from the Renewable Energy Trust to spur construction of 1,000 new units of affordable 'green homes' in MA, up to $30,000 for feasibility studies,	• 411 houses • Efficient lighting, appliances and solar photovoltaic

Building	Stage/Certification	Cost/End-Use	Energy Features
		$50,000 for design and up to $500,000 for construction)	
Monmouth Ocean Hospital Service Corporation (MONOC), Wall-Township Headquarters, Neptune, NJ	Operational	• State healthcare organizer; provides ambulance and paramedic services for 100+ NJ municipalities and medical and specialty care transport programs for 20+ NJ hospitals • NJ Clean Energy Program offers rebates up to 60 percent cost of solar system	Solar array: • 700 solar panels by RWE Schott Solar • 119kW roof mounted solar energy system • Provide 20 percent of electricity to run the building • Clean Energy Program supports sale of Solar Renewable Energy Certificates (SRECs) to NJ electricity suppliers that need solar energy to comply wit NJ's Renewable Portfolio Standards • Design by Dome-Tech Solar
Fannie Mae Urbana Technology Center (UTC), Urbana, MD	LEED certified (first data center certified)	• Data center and office building for 250 staff	• 247,000 sq ft • Data center requires significant electrical loads for computers, security lighting, and power redundancy, but still reduced overall energy consumption by 20% • Installation of white rubber roof reduces "heat island" effect • Power from utility that uses 100% renewable sources • Irrigation design uses captured rain and evaporator cooling towers, saving 13,000 gallons water/day

MIDWEST REGION

Building	Stage/Certification	Cost/End-Use	Energy Features
Grand Valley State University's (GVNU) Lake Ontario Hall Allendale, MI	• Opened August 2005 • Constructed to meet LEED standards	• University buildings; the writing and liberal arts departments • $12 million • $212,500 annual operating costs	• 3-floors, 50,000 sq ft • White, heat-reflective roof • Energy efficient windows with built-in blinds • Waterless urinals • Recycled more than 75% of the waste materials produced by the project
Missouri Schools	• 9 schools in 2005 • 6 schools in 2006	• Schools • $350,000 award by MO Department of Natural Resources	• Installation of solar arrays • Educational data monitoring systems which display real time performance information • Heliotronics, Inc. and Advanced

Building	Stage/Certification	Cost/End-Use	Energy Features
			Energy Systems of Pomona developed

NORTHEAST REGION

No news of interest to report.

SOUTHEAST REGION

Bank of America Corporation received a North Carolina Leadership in Sustainable Energy Award, sponsored by the North Carolina State Energy Office. The award acknowledges companies for outstanding contributions in helping North Carolina achieve its energy efficiency, renewable energy, and sustainable energy goals. The bank's goal is to reduce total annual energy use by three percent through energy efficiency-enhanced building operations and employee education throughout its entire portfolio of facilities. Their efforts resulted in a reduction of total electric consumption by more than 12 million kWh (representing 6.1 percent kWh per square foot reduction). In 2004, Bank of America reduced energy use by more than five percent across all facilities, resulting in $8.24 million in savings and cost avoidance by year-end. The bank's energy reduction targets are to reduce green house gas emissions by seven percent by 2008. (Source: *PR Newswire,* April 4, 2005)

Building	Stage/Certification	Cost/End-Use	Energy Features
Catawba Valley Habitat for Humanity, NC	• Zero Energy Home (first in NC) • Completed August 2005	• Housing • PV output will be sold to the NC Green Power program for $0.18/kWh	• Passive solar design • Geothermal heat pump for space heating and cooling • Solar water heating system • High performance windows • Energy efficient appliances • 4.5 kW of solar PV panels

WESTERN REGION

A report by Northwest Power and Conservation Council finds that conservation costs have dropped dramatically. The upfront costs remain high, but conservation efforts have resulted in energy savings. For example, in the Northwest, new Federal standards and state codes attribute to about 550 MW along with other efforts in saving the region 2,952 MW since 1978. For more information, see http://www.nwcouncil.org/energy/rtf/consreport/2004/Default.asp.

Building	Stage/Certification	Cost/End-Use	Energy Features
Oregon Health & Science University (OHSU), Portland, OR	LEED Gold, maybe Platinum upon completion in fall 2006	Medical and University; OHSU physician practices, outpatient surgery, a wellness center, research labs and educational space.	• 16-story, 400,000 sq ft building • Photovoltaic array • Stone slabs on first floor store as much heat as a 3,000 gallon storage tank • Electricity and hot and chilled water will be provided through the OHSU-affiliated central utility

Building	Stage/Certification	Cost/End-Use	Energy Features
			plant, which incorporates CHP design (using 40% less fuel than a traditional fossil fuel-fired utility power plant).
FedEx Corporation, Oakland Airport	Operational	Mail sorting facility; 260,000 packages sorted daily	Solar array: • 81,000 sq ft roof top covering two buildings • 904-kW rooftop solar system • 300,000+ Sharp solar cells • 80% of hub's energy needs • Designed by PowerLIght
Sierra Nevada College's Tahoe Center of Environmental Sciences, Incline Village, NV	• Seeking LEED Platinum • Seeking completion on August 26, 2006	• Housing for Sierra Nevada and University of California-Davis students and faculty • $24 million facility	• 3-story, 45,000 sq ft • Solar panels
The Citizens Housing Corp. (CHC)'s Folsom/Dore Apartments, San Francisco, CA	• Trying to gain LEED (will be first non-profit developer to do so) • Awards in three different categories from the Pacific Coast Builders Conference and a National Green Building award from the American Institute for Architects. • Opened March 2005	• Housing for adults with special needs • $26.5 million (city $8.75 million grant; Apollo Housing Capital $7.8 million in 4% tax credit equity; the state's Multifamily Housing Program $5.1 million in funding; Citibank $4.3 million in tax-exempt bond financing; Federal Home Loan Bank of San Francisco $392,000 in Affordable Housing Program funds).	• 98 unit building, 3,200 sq ft • Surpasses state energy-efficiency standards by 20% • Tax credit project • Photovoltaic solar power system to generate common-area electricity.
Timberland, CA	Planned	• Distribution center • $3 million • California's Self-Generation Incentive Program will provide a rebate of $1.5 million	Solar array: • 429,000 sq ft • 400 kW solar system with 1,960 PV modules mounted on a structure to generate 60% of the facility's power load. • Constructed by Northern Power Systems
San Marcos, CA	Planned	Apartment Complex	• 1,000 solar PV modules • 200 kW • Installed by Carlson Solar Electric

Building	Stage/Certification	Cost/End-Use	Energy Features
Sierra Nevada Brewing Company, CA	Operational	• Brewing company • $2.4 million rebate from PG&E Self Generation Incentive Program (SGIP)	• 1-MW fuel cell powerplant installed • 4 250-kW Direct Fuel Cell® power plants from FuelCell Energy, Inc. • Waste heat from fuel cell will be harvested as steam and used for the brewing process and other heating
Salutary Sports Club, Shingle Springs, CA	Commissioned	Sports Club	• 102.5 kW PV system • 18 FRONIUS IG 4500-LVs and 1 FRONIUS IG 2500-LV inverter • Installed by Premier Power
Anderson Valley Brewing Company, Boonville, CA	Completion expected at the end of summer 2005	• Brewing company • $860,000 2-phase project	• Two arrays: 9,275 sq ft array on the roof of the brewery's cellar and packaging facility, and an auxiliary 2,880 sq ft ground-based freestanding array • 125,000 W/hr at 480 V AC output combined during peak hours • 142 kW produced will supply a third of the company's energy • Installation by Advance Solar
Foothill-DeAnza Community College, Cupertino, CA	Krisch Center, the Science Center, and the Student and Community Services Center constructed to LEED standards	• Two Community Colleges; enroll 40,000 students annually • $5.1 million total • $2 million in rebates from State of California	• 8 60-kW Capstone microturbines with four on each campus to produce electricity plus heat recovery systems that heat each campus pool • PowerLight solar photovoltaic panels that provide shade and together generate 301 kW electricity
Hilton Vancouver, Vancouver, WA	• Applied for LEED certification • Would be first hotel to gain LEED • Project completed in June 2005	• Hotel; 226-room • Estimated that energy savings will allow hotel to recoup costs in six to eight months	• 30% more energy-efficient than city code requires • CO_2 sensors that adjust the temperature in vacant meeting rooms and hallways • Heat-reflecting roof • 75% construction recycling rate • Water-efficient landscaping • Operable windows
Solargenix Energy, LLC, Solar Power Plant, Southern NV	Completion expected January 2007	• Industry; produce solar energy with emerging solar thermal technologies	65 MW Solar Thermal Power Plant
Morrison Homes, Premier Homes, Treasure Homes, Sacramento, CA	• Zero Energy Home (ZEH) • EnergyStar® Home • Completed	• Housing; 107 homes • Average electricity use 5,260kWh (6,252 kWh for	• 2 kW Roof-Integrated Photovoltaic (RIPV) by GE Energy and BP Solar • Low air infiltration • Vinyl, low-e, spectrally selective

Building	Stage/Certification	Cost/End-Use	Energy Features
	Morrison Homes 2003, Premier Homes 2004 • Started Treasure Homes, 2005	equivalent non ZEH) • Average gas bill $28.89/month ($73.06/month for non ZEH) • Sacramento Municipal Utility District (SMUD) with DOE's Building America assist	windows • 92% efficient furnace • Engineered heating and cooling duct runs • Tankless, instantaneous water heater with a .82 Energy Factor • Insulated Hot Water Pipes • Fluorescent Lighting
Woodlands Market, Kentfield, CA	• Operational • Largest solar-powered grocery store in CA	• Grocery store • The system will pay for itself in six to seven years • $1.5 million+ in cost savings over the course of its 40-year life	• 100 kW solar photovoltaic system • 746 roof-mounted solar modules • Installed by SolarCraft Services of Novato

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STUDIES, REPORTS, AND ANALYSES

ENERGY AND WATER CONSERVATION

***Greenspec Directory: 5th Edition*, Building Green, 2005**

The *Directory* provides a comprehensive guide to over 1,850 environmentally preferable building products and materials. Products covered include recycled or salvaged material by reducing the impact of construction, preserving natural resources, saving energy or water, avoiding toxic or other emissions, and promoting healthy indoor spaces. The *Directory* is available for a price online at http://www.BuildingGreen.com.

***Dictionary of Energy Efficiency Technologies*, Michael F. Hordeski, Association of Energy Engineers, 2005**

Covers advanced power system infrastructure, power options and configurations, systems of generator backup, redundancy, capacity, power quality problems, power protection, computer-controlled systems, auditing, energy reduction, lighting systems, cogeneration, waste heat recovery, and HVAC systems in a dictionary format. The book is available online at https://www.aeecenter.org/books/secure.

MISCELLANEOUS

***HVAC Fundamentals*, Samuel C. Sugarman, Association of Energy Engineers, 2005**

Includes a description on how HVAC systems operate and how to select the right system and system components to achieve optimum performance and efficiency for a particular application. Other topics include compressors, water chillers, fans and fan drives, air distribution and variable air volume, pumps and water distribution, controls and their components, heat recovery, energy conservation strategies, heat flow fundamentals, and heat flow calculations. The book is available online at https://www.aeecenter.org/books/secure.

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APPENDIX A
ENERGY POLICY ACT OF 2005
FEDERAL ENERGY MANAGEMENT PROVISIONS

Summary of Major Energy Bill Provisions Affecting Federal Energy Managers			
Section	**Pages**	**Lead Agency**	**Provisions**
102. Energy management goals	3-4	DOE	• Annual energy reduction goal of 2% from FY 2006 - FY 2015 • Reporting baseline changed from 1985 to 2003 • In 180 days, DOE issues guidelines • Retention of energy and water savings by agencies • DOE reports annually on progress to the President and Congress • DOE recommends new requirements for FY 2016 – FY 2025 by 2014
103. Energy use measurement and accounting	4-5	DOE	• Electric metering required in federal buildings by 2012 • In 180 days, DOE consults and issues guidelines • Agencies report to DOE 6 months after guidelines issued
104. Procurement of Energy Efficient Products	5-6	DOE	• Energy Star and FEMP-recommended products procurement requirement • Exception when not cost-effective or meets agency functional requirements • Energy efficient specs required in procurement bids and evaluations • Requires premium efficient products: electric motors, air conditioning, and refrigeration equipment procurements • In 180 days, DOE issues guidelines
104 (c) Energy efficient products in Federal catalogs	5-6	GSA, DoD	• Requires listing of Energy Star and FEMP-recommended products by GSA and Defense Logistics Agency
105. ESPCs	6	DOE	• Reauthorizes ESPCs through September 30, 2016
109. Federal Building Performance Standards	6-7	DOE	• Buildings to be designed to 30% below ASHRAE standard or International Energy Code if life-cycle cost-effective • Application of sustainable design principles • Agencies must identify new buildings in their budget request and identify those that meet or exceed the standard • DOE must include the agency budget information above in the annual report • DOE must determine cost-effectiveness of subsequent standard revisions within one year
111. Enhancing efficiency in management of Federal lands	7	DOI, DOC, and USDA	• Energy efficiency technologies in public and administrative buildings to the extent practical

Summary of Major Energy Bill Provisions Affecting Federal Energy Managers			
Section	**Pages**	**Lead Agency**	**Provisions**
203. Federal purchase requirement (renewables)	7-8	DOE	• Renewable electricity consumption by the Federal government can not be less than: 3 percent in FY 2007-FY 2009 5 percent in FY 2010-FY 2012 7.5 percent in 2013 and thereafter • Defines several types of renewables • Double credit for renewables (1) produced on the site or on Federal lands and used at a Federal facility or (2) produced on Native American lands • Biannual DOE progress reporting beginning no later than April 15, 2007
204. Use of photovoltaic energy in public buildings	8-9	GSA	• Establishes a photovoltaic energy commercialization program in Federal buildings • Issue rules, develop strategies and reports annually to Congress • Install 20,000 solar energy systems in Federal buildings by 2010 • Requires an evaluation 60-days after passage • Authorizes funds for the program
207. Installation of a photoelectric system	9	GSA	• Authorized funds for a solar wall at DOE's Forrestal Building
1802. Study of Energy Efficiency Standards	9	NAS	• Study on energy efficiency standards at the site compared to the source of energy production
1833. Renewable Energy on Federal Land	9	NAS	• Study on the potential of developing wind, solar, and ocean energy on Federal lands

CONFERENCE REPORT ON H.R. 6, *ENERGY POLICY ACT OF 2005* –
(House of Representatives - July 27, 2005)

SEC. 102. ENERGY MANAGEMENT REQUIREMENTS.

(a) *Energy Reduction Goals*.--

(1) AMENDMENT.--Section 543(a)(1) of the National Energy Conservation Policy Act (42 U.S.C. 8253(a)(1)) is amended by striking ``its Federal buildings so that'' and all that follows through the end and inserting ``the Federal buildings of the agency (including each industrial or laboratory facility) so that the energy consumption per gross square foot of the Federal buildings of the agency in fiscal years 2006 through 2015 is reduced, as compared with the energy consumption per gross square foot of the Federal buildings of the agency in fiscal year 2003, by the percentage specified in the following table:

Fiscal Year	**Percentage reduction**
2006	2
2007	4
2008	6
2009	8
2010	10
2011	12
2012	14
2013	16
2014	18
2015	20.

(2) REPORTING BASELINE.--The energy reduction goals and baseline established in paragraph (1) of section 543(a) of the National Energy Conservation Policy Act (42 U.S.C. 8253(a)(1)), as amended by this subsection, supersede all previous goals and baselines under such paragraph, and related reporting requirements.

(b) *Review and Revision of Energy Performance Requirement*.--Section 543(a) of the National Energy Conservation Policy Act (42 U.S.C. 8253(a)) is further amended by adding at the end the following:

(3) Not later than December 31, 2014, the Secretary shall review the results of the implementation of the energy performance requirement established under paragraph (1) and submit to Congress recommendations concerning energy performance requirements for fiscal years 2016 through 2025.''

(c) *Exclusions*.--Section 543(c)(1) of the National Energy Conservation Policy Act (42 U.S.C. 8253(c)(1)) is amended by striking ``An agency may exclude'' and all that follows through the end and inserting ``(A) An agency may exclude, from the energy performance requirement for a fiscal year established under subsection (a) and the energy management requirement established under subsection (b), any Federal building or collection of Federal buildings, if the head of the agency finds that--

(i) compliance with those requirements would be impracticable;

(ii) the agency has completed and submitted all federally required energy management reports;

(iii) the agency has achieved compliance with the energy efficiency requirements of this Act, the *Energy Policy Act of 1992*, Executive orders, and other Federal law; and

(iv) the agency has implemented all practicable, life cycle cost-effective projects with respect to the Federal building or collection of Federal buildings to be excluded.

(B) A finding of impracticability under subparagraph (A)(i) shall be based on--

(i) the energy intensiveness of activities carried out in the Federal building or collection of Federal buildings; or

(ii) the fact that the Federal building or collection of Federal buildings is used in the performance of a national security function.''.

(d) *Review by Secretary*.--Section 543(c)(2) of the National Energy Conservation Policy Act (42 U.S.C. 8253(c)(2)) is amended--

(1) by striking impracticability standards'' and inserting ``standards for exclusion'';

(2) by striking a finding of impracticability'' and inserting ``the exclusion''; and

(3) by striking energy consumption requirements'' and inserting ``requirements of subsections (a) and (b)(1)''.

(e) *Criteria*.--Section 543(c) of the National Energy Conservation Policy Act (42 U.S.C. 8253(c)) is further amended by adding at the end the following:

(3) Not later than 180 days after the date of enactment of this paragraph, the Secretary shall issue guidelines that establish criteria for exclusions under paragraph (1).''

(f) *Retention of Energy and Water Savings*.--Section 546 of the National Energy Conservation Policy Act (42 U.S.C. 8256) is amended by adding at the end the following new subsection:

(e) *Retention of Energy and Water Savings*.--An agency may retain any funds appropriated to that agency for energy expenditures, water expenditures, or wastewater treatment expenditures, at buildings subject to the requirements of section 543(a) and (b), that are not made because of energy savings or water savings. Except as otherwise provided by law, such funds may be used only for energy efficiency, water conservation, or unconventional and renewable energy resources projects. Such projects shall be subject to the requirements of section 3307 of title 40, United States Code.''.

(g) *Reports*.--Section 548(b) of the National Energy Conservation Policy Act (42 U.S.C. 8258(b)) is amended--

(1) in the subsection heading, by inserting ``*the President and*'' before ``*Congress*''; and

(2) by inserting ``President and'' before Congress''.

(h) *Conforming Amendment*.--Section 550(d) of the National Energy Conservation Policy Act (42 U.S.C. 8258b(d)) is amended in the second sentence by striking ``the 20 percent reduction goal established under section 543(a) of the National Energy Conservation Policy Act (42 U.S.C. 8253(a))'' and inserting each of the energy reduction goals established under section 543(a).''

SEC. 103. ENERGY USE MEASUREMENT AND ACCOUNTABILITY.

Section 543 of the National Energy Conservation Policy Act (42 U.S.C. 8253) is further amended by adding at the end the following:

(e) *Metering of Energy Use*.--

(1) DEADLINE.--By October 1, 2012, in accordance with guidelines established by the Secretary under paragraph (2), all Federal buildings shall, for the purposes of efficient use of energy and reduction in the cost of electricity used in such buildings, be metered. Each agency shall use, to the maximum extent practicable, advanced meters or advanced metering devices that provide data at least daily and that measure at least hourly consumption of electricity in the Federal buildings of the agency. Such data shall be incorporated into existing Federal energy tracking systems and made available to Federal facility managers.

(2) GUIDELINES.--

(A) IN GENERAL.--Not later than 180 days after the date of enactment of this subsection, the Secretary, in consultation with the Department of Defense, the General Services Administration, representatives from the metering industry, utility industry, energy services industry, energy efficiency industry, energy efficiency advocacy organizations, national laboratories, universities, and Federal facility managers, shall establish guidelines for agencies to carry out paragraph (1).

(B) REQUIREMENTS FOR GUIDELINES.--The guidelines shall-- ``(i) take into consideration--

(I) the cost of metering and the reduced cost of operation and maintenance expected to result from metering;

(II) the extent to which metering is expected to result in increased potential for energy management, increased potential for energy savings and energy efficiency improvement, and cost and energy savings due to utility contract aggregation; and

(III) the measurement and verification protocols of the Department of Energy;

(ii) include recommendations concerning the amount of funds and the number of trained personnel necessary to gather and use the metering information to track and reduce energy use;

(iii) establish priorities for types and locations of buildings to be metered based on cost-effectiveness and a schedule of 1 or more dates, not later than 1 year after the date of issuance of the guidelines, on which the requirements specified in paragraph (1) shall take effect; and

(iv) establish exclusions from the requirements specified in paragraph (1) based on the de minimis quantity of energy use of a Federal building, industrial process, or structure.

(3) PLAN.--Not later than 6 months after the date guidelines are established under paragraph (2), in a report submitted by the agency under section 548(a), each agency shall submit to the Secretary a plan describing how the agency will implement the requirements of paragraph (1), including (A) how the agency will designate personnel primarily responsible for achieving the requirements and (B) demonstration by the agency, complete with documentation, of any finding that advanced meters or advanced metering devices, as defined in paragraph (1), are not practicable."

SEC. 104. PROCUREMENT OF ENERGY EFFICIENT PRODUCTS.

(a) *Requirements*.--Part 3 of title V of the National Energy Conservation Policy Act (42 U.S.C. 8251 et seq.), as amended by section 101, is amended by adding at the end the following:

SEC. 553. FEDERAL PROCUREMENT OF ENERGY EFFICIENT PRODUCTS.

(a) *Definitions*.--In this section:

(1) AGENCY.--The term `agency' has the meaning given that term in section 7902(a) of title 5, United States Code.

(2) ENERGY STAR PRODUCT.--The term `Energy Star product' means a product that is rated for energy efficiency under an Energy Star program.

(3) ENERGY STAR PROGRAM.--The term `Energy Star program' means the program established by section 324A of the Energy Policy and Conservation Act.

(4) FEMP DESIGNATED PRODUCT.--The term `FEMP designated product' means a product that is designated under the Federal Energy Management Program of the Department of Energy as being among the highest 25 percent of equivalent products for energy efficiency.

(5) PRODUCT.--The term `product' does not include any energy consuming product or system designed or procured for combat or combat-related missions.

(b) *Procurement of Energy Efficient Products*.--

(1) REQUIREMENT.--To meet the requirements of an agency for an energy consuming product, the head of the agency shall, except as provided in paragraph (2), procure--

(A) an Energy Star product; or

(B) a FEMP designated product.

(2) EXCEPTIONS.--The head of an agency is not required to procure an Energy Star product or FEMP designated product under paragraph (1) if the head of the agency finds in writing that--

(A) an Energy Star product or FEMP designated product is not cost-effective over the life of the product taking energy cost savings into account; or

(B) no Energy Star product or FEMP designated product is reasonably available that meets the functional requirements of the agency.

(3) PROCUREMENT PLANNING.--The head of an agency shall incorporate into the specifications for all procurements involving energy consuming products and systems, including guide specifications, project specifications, and construction, renovation, and services contracts that include provision of energy consuming products and systems, and into the factors for the evaluation of offers received for the procurement, criteria for energy efficiency that are consistent with the criteria used for rating Energy Star products and for rating FEMP designated products.

(c) *Listing of Energy Efficient Products in Federal Catalogs*.--Energy Star products and FEMP designated products shall be clearly identified and prominently displayed in any inventory or listing of products by the General Services Administration or the Defense Logistics Agency. The General Services Administration or the Defense Logistics Agency shall supply only Energy Star products or FEMP designated products for all product categories covered by the Energy Star program or the Federal Energy Management Program, except in cases where the agency ordering a product specifies in writing that no Energy Star product or FEMP designated product is available to meet the buyer's functional requirements, or that no Energy Star product or FEMP designated product is cost-effective for the intended application over the life of the product, taking energy cost savings into account.

(d) *Specific Products*.--(1) In the case of electric motors of 1 to 500 horsepower, agencies shall select only premium efficient motors that meet a standard designated by the Secretary. The Secretary shall designate such a standard not later than 120 days after the date of the enactment of this section, after considering the recommendations of associated electric motor manufacturers and energy efficiency groups.

(2) All Federal agencies are encouraged to take actions to maximize the efficiency of air conditioning and refrigeration equipment, including appropriate cleaning and maintenance, including the use of any system treatment or additive that will reduce the electricity consumed by air conditioning and refrigeration equipment. Any such treatment or additive must be--

(A) determined by the Secretary to be effective in increasing the efficiency of air conditioning and refrigeration equipment without having an adverse impact on air conditioning performance (including cooling capacity) or equipment useful life;

(B) determined by the Administrator of the Environmental Protection Agency to be environmentally safe; and

(C) shown to increase seasonal energy efficiency ratio (SEER) or energy efficiency ratio (EER) when tested by the National Institute of Standards and Technology according to Department of Energy test procedures without causing any adverse impact on the system, system components, the refrigerant or lubricant, or other materials in the system.

Results of testing described in subparagraph (C) shall be published in the Federal Register for public review and comment. For purposes of this section, a hardware device or primary refrigerant shall not be considered an additive.

(e) *Regulations*.--Not later than 180 days after the date of the enactment of this section, the Secretary shall issue guidelines to carry out this section."

(b) *Conforming Amendment*.--The table of contents of the National Energy Conservation Policy Act is further amended by inserting after the item relating to section 552 the following new item: Sec..553..Federal procurement of energy efficient products.

SEC. 105. ENERGY SAVINGS PERFORMANCE CONTRACTS.

(a) *Extension*.--Section 801(c) of the National Energy Conservation Policy Act (42 U.S.C. 8287(c)) is amended by striking “2006" and inserting 2016".

(b) *Extension of Authority*.--Any energy savings performance contract entered into under section 801 of the National Energy Conservation Policy Act (42 U.S.C. 8287) after October 1, 2003, and before the date of enactment of this Act, shall be considered to have been entered into under that section.

SEC. 109. FEDERAL BUILDING PERFORMANCE STANDARDS.

Section 305(a) of the Energy Conservation and Production Act (42 U.S.C. 6834(a)) is amended--

(1) in paragraph (2)(A), by striking ``CABO Model Energy Code, 1992 (in the case of residential buildings) or ASHRAE Standard 90.1-1989" and inserting “the 2004 International Energy Conservation Code (in the case of residential buildings) or ASHRAE Standard 90.1-2004"; and

(2) by adding at the end the following:

(3)(A) Not later than 1 year after the date of enactment of this paragraph, the Secretary shall establish, by rule, revised Federal building energy efficiency performance standards that require that--

(i) if life-cycle cost-effective for new Federal buildings--

(I) the buildings be designed to achieve energy consumption levels that are at least 30 percent below the levels established in the version of the ASHRAE Standard or the International Energy Conservation Code, as appropriate, that is in effect as of the date of enactment of this paragraph; and

(II) sustainable design principles are applied to the siting, design, and construction of all new and replacement buildings; and

(ii) if water is used to achieve energy efficiency, water conservation technologies shall be applied to the extent that the technologies are life-cycle cost-effective.

(iii) Not later than 1 year after the date of approval of each subsequent revision of the ASHRAE Standard or the International Energy Conservation Code, as appropriate, the Secretary shall determine, based on the cost-effectiveness of the requirements under the amendment, whether the revised standards established under this paragraph should be updated to reflect the amendment.

(iv) In the budget request of the Federal agency for each fiscal year and each report submitted by the Federal agency under section 548(a) of the National Energy Conservation Policy Act (42 U.S.C. 8258(a)), the head of each Federal agency shall include--

(v) a list of all new Federal buildings owned, operated, or controlled by the Federal agency; and

(vi) a statement specifying whether the Federal buildings meet or exceed the revised standards established under this paragraph.".

SEC. 111. ENHANCING ENERGY EFFICIENCY IN MANAGEMENT OF FEDERAL LANDS.

(a) *Sense of the Congress*.--It is the sense of the Congress that Federal agencies should enhance the use of energy efficient technologies in the management of natural resources.

(b) *Energy Efficient Buildings*.--To the extent practicable, the Secretary of the Interior, the Secretary of Commerce, and the Secretary of Agriculture shall seek to incorporate energy efficient technologies in public and administrative buildings associated with management of the National Park System, National Wildlife Refuge System, National Forest System, National Marine Sanctuaries System, and other public lands and resources managed by the Secretaries.

(c) *Energy Efficient Vehicles*.--To the extent practicable, the Secretary of the Interior, the Secretary of Commerce, and the Secretary of Agriculture shall seek to use energy efficient motor vehicles, including vehicles equipped with biodiesel or hybrid engine technologies, in the management of

the National Park System, National Wildlife Refuge System, National Forest System, National Marine Sanctuaries System, and other public lands and resources managed by the Secretaries.

SEC. 203. FEDERAL PURCHASE REQUIREMENT.

(a) *Requirement*.--The President, acting through the Secretary, shall seek to ensure that, to the extent economically feasible and technically practicable, of the total amount of electric energy the Federal Government consumes during any fiscal year, the following amounts shall be renewable energy:

(1) Not less than 3 percent in fiscal years 2007 through 2009.

(2) Not less than 5 percent in fiscal years 2010 through 2012.

(3) Not less than 7.5 percent in fiscal year 2013 and each fiscal year thereafter.

(b) *Definitions*.--In this section:

(1) BIOMASS.--The term ``biomass'' means any lignin waste material that is segregated from other waste materials and is determined to be nonhazardous by the Administrator of the Environmental Protection Agency and any solid, nonhazardous, cellulosic material that is derived from--

(A) any of the following forest-related resources: mill residues, precommercial thinnings, slash, and brush, or nonmerchantable material;

(B) solid wood waste materials, including waste pallets, crates, dunnage, manufacturing and construction wood wastes (other than pressure-treated, chemically-treated, or painted wood wastes), and landscape or right-of-way tree trimmings, but not including municipal solid waste (garbage), gas derived from the biodegradation of solid waste, or paper that is commonly recycled;

(C) agriculture wastes, including orchard tree crops, vineyard, grain, legumes, sugar, and other crop by-products or residues, and livestock waste nutrients; or

(D) a plant that is grown exclusively as a fuel for the production of electricity.

(2) RENEWABLE ENERGY.--The term ``renewable energy'' means electric energy generated from solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.

(c) *Calculation*.--For purposes of determining compliance with the requirement of this section, the amount of renewable energy shall be doubled if--

(1) the renewable energy is produced and used on-site at a Federal facility;

(2) the renewable energy is produced on Federal lands and used at a Federal facility; or

(3) the renewable energy is produced on Indian land as defined in title XXVI of the *Energy Policy Act of 1992* (25 U.S.C. 3501 et seq.) and used at a Federal facility.

(d) *Report*.--Not later than April 15, 2007, and every 2 years thereafter, the Secretary shall provide a report to Congress on the progress of the Federal Government in meeting the goals established by this section.

SEC. 204. USE OF PHOTOVOLTAIC ENERGY IN PUBLIC BUILDINGS.

(a) *In General*.--Subchapter VI of chapter 31 of title 40, United States Code, is amended by adding at the end the following:

§3177. Use of photovoltaic energy in public buildings

(a) *Photovoltaic Energy Commercialization Program*.--

(1) IN GENERAL.--The Administrator of General Services may establish a photovoltaic energy commercialization program for the procurement and installation of photovoltaic solar electric systems for electric production in new and existing public buildings.

(2) PURPOSES.--The purposes of the program shall be to accomplish the following:

(A) To accelerate the growth of a commercially viable photovoltaic industry to make this energy system available to the general public as an option which can reduce the national consumption of fossil fuel.

(B) To reduce the fossil fuel consumption and costs of the Federal Government.

(C) To attain the goal of installing solar energy systems in 20,000 Federal buildings by 2010, as contained in the Federal Government's Million Solar Roof Initiative of 1997.

(D) To stimulate the general use within the Federal Government of life-cycle costing and innovative procurement methods.

(E) To develop program performance data to support policy decisions on future incentive programs with respect to energy.

(3) ACQUISITION OF PHOTOVOLTAIC SOLAR ELECTRIC SYSTEMS.--

(A) IN GENERAL.--The program shall provide for the acquisition of photovoltaic solar electric systems and associated storage capability for use in public buildings.

(B) ACQUISITION LEVELS.--The acquisition of photovoltaic electric systems shall be at a level substantial enough to allow use of low-cost production techniques with at least 150 megawatts (peak) cumulative acquired during the 5 years of the program.

(4) ADMINISTRATION.--The Administrator shall administer the program and shall--

(A) issue such rules and regulations as may be appropriate to monitor and assess the performance and operation of photovoltaic solar electric systems installed pursuant to this subsection;

(B) develop innovative procurement strategies for the acquisition of such systems; and

(C) transmit to Congress an annual report on the results of the program.

(b) *Photovoltaic Systems Evaluation Program*.--

(1) IN GENERAL.--Not later than 60 days after the date of enactment of this section, the Administrator shall establish a photovoltaic solar energy systems evaluation program to evaluate such photovoltaic solar energy systems as are required in public buildings.

(2) PROGRAM REQUIREMENT.--In evaluating photovoltaic solar energy systems under the program, the Administrator shall ensure that such systems reflect the most advanced technology.

(c) *Authorization of Appropriations*.--

(1) PHOTOVOLTAIC ENERGY COMMERCIALIZATION PROGRAM.--There are authorized to be appropriated to carry out subsection (a) $50,000,000 for each of fiscal years 2006 through 2010. Such sums shall remain available until expended.

(2) PHOTOVOLTAIC SYSTEMS EVALUATION PROGRAM.--There are authorized to be appropriated to carry out subsection (b) $10,000,000 for each of fiscal years 2006 through 2010. Such sums shall remain available until expended.''

(b) *Conforming Amendment*.--The table of sections for the National Energy Conservation Policy Act is amended by inserting after the item relating to section 569 the following:

Sec..570..Use of photovoltaic energy in public buildings''

SEC. 207. INSTALLATION OF PHOTOVOLTAIC SYSTEM.

There is authorized to be appropriated to the General Services Administration to install a photovoltaic system, as set forth in the Sun Wall Design Project, for the headquarters building of the Department of Energy located at 1000 Independence Avenue Southwest in the District of Columbia, commonly know as the Forrestal Building, $20,000,000 for fiscal year 2006. Such sums shall remain available until expended.

SEC. 1802. STUDY OF ENERGY EFFICIENCY STANDARDS.

The Secretary shall contract with the National Academy of Sciences for a study, to be completed within 1 year after the date of enactment of this Act, to examine whether the goals of energy efficiency standards are best served by measurement of energy consumed, and efficiency improvements, at the actual site of energy consumption, or through the full fuel cycle, beginning at the source of energy production. The Secretary shall submit the report to Congress.

SEC. 1833. RENEWABLE ENERGY ON FEDERAL LAND.

(a) *National Academy of Sciences Study*.--Not later than 90 days after the date of enactment of this Act, the Secretary of the Interior shall enter into a contract with the National Academy of Sciences under which the National Academy of Sciences shall--

(1) study the potential of developing wind, solar, and ocean energy resources (including tidal, wave, and thermal energy) on Federal land available for those uses under current law and the outer Continental Shelf;

(2) assess any Federal law (including regulations) relating to the development of those resources that is in existence on the date of enactment of this Act; and

(3) recommend statutory and regulatory mechanisms for developing those resources.

(b) *Submission to Congress*.--Not later than 2 years after the date of enactment of this Act, the Secretary of the Interior shall submit to Congress the results of the study under subsection (a).

APPENDIX B
NEW LEGISLATION OF INTEREST TO FEMP

HOUSE

Number		Short title	Date	Sponsor	Status
HR 3263		*Energy Efficiency Cornerstone Act of 2005*	7/13/05	Zach Wamp (R/TN)	Referred to Committees on Energy and Commerce, Ways and Means, and Financial Services

SEC. 121. ENERGY STAR PROGRAM.

Amends *Energy Policy and Conservation Act of 1975,* by establishing within DOE and EPA a voluntary program to identify and promote energy-efficient products and buildings through voluntary labeling of products and buildings. DOE and EPA shall share program responsibilities to:

- Promote EnergyStar® technologies as preferred technologies for energy efficiency;
- Enhance public awareness of the EnergyStar® label;
- Regularly update EnergyStar® criteria;
- Solicit comments prior to establishing or revising an EnergyStar® product category;
- Provide reasonable notice of any changes in product categories;
- Provide appropriate lead time prior to effective date for a revision to a product category.

Authorizes $70,000,000 for FY 2006; $90,000,000 for FY 2007; $110,000,000 for FY 2008; $130,000,000 for FY 2009; $150,000,000 for FY 2010.

SEC. 131. FEDERAL BUILDING PERFORMANCE STANDARDS.

Amends *Energy Conservation and Production Act of 1976,* by requiring that for each new and renovated Federal building:

- Buildings must be designed, constructed, and operated to achieve energy consumption levels at least 30 percent below the ASHRAE Standard or the International Energy Conservation Code;
- Sustainable design principles are to be applied to all new and replacement buildings; and
- Water conservation technologies shall be applied to the extent they are life-cycle cost effective.

Each Federal agency's budget request shall include a list of all new agency buildings and information on whether the facilities meet or exceed the revised standards.

All housing constructed under DOD's military housing privatization initiative shall be EnergyStar® qualified and equipped with EnergyStar® and FEMP-designated appliances and lighting.

Number	Short title	Date	Sponsor	Status
HR 3081	*Renewable Fuels Act of 2005*	6/28/05	Gil Gutknecht (R/MN)	7/1/2005: Referred to Subcommittee on Energy and Air Quality

SEC. 102. FEDERAL AGENCY ETHANOL-BLENDED GASOLINE, AND BIODIESEL, PURCHASING REQUIREMENT.

Amends the *Energy Policy Act of 1992* by requiring each Federal agency to purchase ethanol-blended gasoline containing at least 10 percent ethanol rather than nonethanol-blended gasoline.

SEC. 207. REVIEW OF FEDERAL PROCUREMENT INITIATIVES RELATING TO USE OF RECYCLED PRODUCTS AND FLEET AND TRANSPORTATION EFFICIENCY.

Within 180 days after date of enactment, GSA shall submit to Congress a report detailing each Federal agency's efforts to implement procurement policies specified in Executive Order No. 13101 (relating to governmental use of recycled products) and Executive Order No. 13149 (relating to Federal fleet and transportation efficiency).

SENATE

Number	Short title	Date	Sponsor	Status
S 1232	*Fuels Security Act of 2005*	6/14/05	Frank Lautenberg (D/NJ)	6/14/2005: Referred to Committee on Environment and Public Works

SEC. 102. FEDERAL AGENCY ETHANOL-BLENDED GASOLINE AND BIODIESEL PURCHASING REQUIREMENT.

Amends the *Energy Policy Act of 1992* by requiring each Federal agency to purchase ethanol-blended gasoline containing at least 10 percent ethanol rather than non ethanol-blended gasoline.

SEC. 207. REVIEW OF FEDERAL PROCUREMENT INITIATIVES RELATING TO USE OF RECYCLED PRODUCTS AND FLEET AND TRANSPORTATION EFFICIENCY.

Within 180 days after date of enactment, GSA shall submit to Congress a report detailing each Federal agency's efforts to implement procurement policies specified in Executive Order No. 13101 (relating to governmental use of recycled products) and Executive Order No. 13149 (relating to Federal fleet and transportation efficiency).

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APPENDIX C – NEW TECHNOLOGIES

For informational purposes only. Listing *does not* imply endorsement.

Technology	Manufacturer	Manufacturers Claim	Contact
HVAC			
MPO™ Oil Boiler	Burnham Hydronics	High-efficiency oil boiler maintains efficiency level as sections increase. Boiler is 87 percent AFUE efficient and EnergyStar® certified.	http://www.burnham.com
City Multi® PMFY Ductless One-way Ceiling Cassette and PFFY Floor-mounted Air Handlers	Mitsubishi Electric, HVAC Advanced Products Div.,	Variable refrigerant flow zoning systems. PMFY provides single-direction airflow in locations experiencing excessive heat from a window or in a small office area. PMFY is offered in capacities of 8,000, 10,000, 12,000, and 16,000 Btuh. PFFY is utilized in installations with unavailable space above the ceiling or for replacing package terminal air conditioners or unit ventilators. PMFY is offered in six capacities: 8,000, 10,000, 12,000, 16,000, 20,000, and 24,000 Btuh.	http://www.mehvac.com
THDC Series Air-cooled Condensing Units and THHP Series Defrost and Frostless Heat Pumps	AeroSys Inc.	Used for applications requiring horizontal condenser air discharge or external static pressure capability. Offered in capacity sizes of 1½, 2, and 2½ tons. THDC consists of heat pump-duty rated compressors and extended-surface coils and THHP consists of a scroll compressor, multispeed blower motor, stainless steel condensate/defrost pan, and electric box located on top of the unit.	http://www.aerosysinc.com
Hot Gas Reheat Climate Control	Trane	Climate control feature recycles wasted heat energy. Energy is used to reduce humidity, mold growth potential, and to improve indoor air quality, and maintain comfort.	http://www.trane.com
Radiant Heating Cable	Orbit Manufacturing Company	Designed for interior floor warming and space heating applications. 512-foot cable covers 221 to 260 square feet of floor space and draws a maximum of 11.3 amps at 230 volts. Applicable with all types of flooring material, including tile, hardwood, laminates, and carpet. Easy and safe installation process.	http://www.orbitmfg.com

Technology	Manufacturer	Manufacturers Claim	Contact
LIGHTING			
MP 875-W Universal Pulse-Start Lamp	Venture Lighting	Designed for applications at parking lots, outdoors, high bays, and site lighting. Compared to the 1000 watt metal halide system, MP 875-W saves 155 system watts, provides energy savings, high lumen output of 95,000 lumens, mean lumens of 76,000, and a rated life of 20,000 + hours.	http://www.venturelighting.com
MIRO Micro Matt	Alanod	Reflective material provides 20% more light to the task than the same luminaire that uses traditional white paint reflector. The MIRO Micro Matt is 93% reflective and 75% specular.	http://www.alanod.com
Cold Cathode	TCP	Low-volt starting method extends bulb life by 25%. Phosphor coating provides color consistency and resistance to fading and ultraviolet radiation. Consist of 3-5 W, lasts 25,000 hours, and recommended for rapid cycle applications.	http://www.tcpi.com
SageGlass Electronically Tintable Windows	Wausau Window, Wall Systems, and SAGE Electrochromics, Inc.	Controls glare, reduces heat gain, blocks ultraviolet rays, and increases benefits of daylighting. Department of Energy estimates 28% cooling energy savings; 31% heating energy savings, and up to 25% size reduction for HVAC system.	http://www.wausauwindow.com
Prismatic High Bay	Energy Solutions International, Inc.	Offers superior lighting quality with 86.6% photometric efficiency. Post-painted aluminium construction insures durability and long-life.	http://www.esilighting.com/index1.htm
WATER EFFICIENCY			
Reservoir Mixing System (RMS™)	Severn Trent Services	Manages, maintains, and controls chlorine residual levels at municipal, commercial, and industrial applications. Optimizes water quality, reduces cost, and minimizes energy consumption.	http://www.severntrentservices.com
Tideflex® Mixing System	Tideflex Technologies	Improves quality of drinking water at water storage reservoirs and eliminates stagnation and short-circuiting. Installation feasible in all sizes of new or existing water storage tanks.	http://www.tideflex.com

Technology	Manufacturer	Manufacturers Claim	Contact
MIOX – Biofilm Elimination	MIOX Corp	Consists of mixed oxidants generated onsite through the use of salt, water, and an electrolytic cell. Exhibits the ability to remove the biofilm and prevent regrowth. Chlorine dosage reduced by 60% to only 0.6 mg/l.	http://www.miox.com
Downstream Defender®	Hydro International	Hydrodynamic vortex separator provides greater pollutant removal of sediment, floatables, and associated pollutants from stormwater runoff.	http://www.hydro-international.biz
***Info*Works Software**	Wallingford Software	Comprehensive and fully integrated hydraulic modeling platform. Encompasses water cycle from supply and distribution, wastewater and stormwater management through to river management modeling.	http://www.wallingfordsoftware.com
ENERGY MANAGEMENT TOOLS			
2005 Renewable Energy Map	Global Energy Decisions	Displays existing renewable energy projects, proposed renewable energy projects, transmission infrastructure, wind resource measurements, facility information, and geographic issues surrounding renewable energy development.	http://www.globalenergydecisions.com
U.S. Power System Map	Global Energy Decisions	Displays utility and non-utility power plants, transmission lines, plant locator table, regional insets, service territories, and NERC regions.	http://www.globalenergydecisions.com
Energy Plus Version 1.2.2 Build 030	Department of Energy	Building energy simulation program for modeling building heating, cooling, lighting, ventilating, and other energy flows.	http://www.eere.energy.gov/buildings/energyplus/cfm/reg_form.cfm
Parasol	Lund Institute of Technology	Design tool to study the potential of solar protection for different types of sunshades and glazing systems and their influence on the building energy performance at an early design stage.	http://www.parasol.se
e-Bench	Energy and Technical Services	Comprehensively measures and compares the energy, utility, and environmental efficiency of a facility or process to established benchmarks	http://www.energyts.com

Technology	Manufacturer	Manufacturers Claim	Contact
MISCELLANEOUS			
Ecosmart® Fire	The Fire Company	Fueled by methylated spirits, an environmentally friendly and renewable fuel. Does not require permanent fixture or fitting, fits into a wide range of architectural environments, and requires minimal amount of assembly.	http://www.ecosmartfire.com
TWIN Elevator	ThyssenKrupp Elevator	Operates two elevators independently in a single hoistway. Eliminates the use of an additional hoistway saving on construction and maintenance costs. Allows freedom in design through extra space.	http://www.thyssenkruppelevator.com
Asana Eco Intelligent® Polyester	Victor	Polyester yarn-dyed panel fabric, certified for eco-effectiveness by McDonough Braungart Design Chemistry. Fabrics are recyclable and produced with renewable energy.	http://www.victor-innovatex.com

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APPENDIX D
MEETINGS, CONFERENCES, AND OTHER EVENTS

NOTE: New events are highlighted in blue.
DOE-sponsored events are highlighted in green.

FEMP Training Calendar: http:// www.eere.energy.gov/femp/newsevents/events.cfm

GENERAL ANNOUNCEMENTS

Date	Event	Sponsor	Topic	Website
September 6-October 14, 2005	PV Design Online	Solar Energy Institute	Design a complete solar electric photovoltaic power system.	http://www.solarenergy.org/workshops
September 6-October 14, 2005	Solar Home Design Online	Solar Energy Institute	How-to-build energy efficient sustainable homes.	http://www.solarenergy.org/workshops
September 7, 2005	Online Seminar: Effective Energy Management and Program Development	Association of Energy Engineers (AEE)	Energy procurement, energy-related equipment purchasing, M&V staffing and training, communications, setting energy consumption targets, and tracking/feedback loop systems.	http://www.aeecenter.org
September 8, 2005	Online Course: Introduction to HVAC Controls	Association of Energy Engineers (AEE)	Sequences of operation, DDC point lists, common control sequences used for HVAC systems, and designing a DDC system.	http://www.aeecenter.org
September 8, 2005	Online Course: Advanced HVAC Control Strategies	Association of Energy Engineers (AEE)	Maximizing and applying under-utilized sequences to optimize energy-savings.	http://www.aeecenter.org
September 21, 2005	Integrated Energy Systems Webcast	Department of Energy's Distributed Energy Program	DOE's partnering efforts with private industry to accelerate installation of integrated energy systems for three projects.	http://www.ieswebcast.com

CENTRAL

Date	Event	Sponsor	Topic	WEBSITE
September 13-15, 2005	The Theory and Practice of Distributed Generation and On-site CHP Austin, TX	Association of Energy Engineers (AEE)	Definitions, cogeneration systems, types, benefits, technologies, regulatory issues, barriers to implementation, information resources, economic and life cycle analysis of DG and CHP.	http://www.aeecenter.org
September 14-15, 2005	World Energy Engineering Congress 2005 Expo Austin, TX	AEE and Austin Energy	Renewable and alternative energy, combined heat & power, distributed generation, lighting efficiency, HVAC systems and controls, integrated building automation & energy management, thermal storage and load management, boilers and combustion controls, geoexchange technologies, solar and fuel cell technologies, applications specific to Federal energy management programs, and energy services and project financing.	http://www.energycongress.com
October 18-19, 2005	Federal Utility Partnership Working Group Rapid City, SD	Department of Energy's Federal Energy Management Program	Cost-effective energy efficiency, water conservation, and renewable energy projects at Federal sites.	http://www.eere.energy.gov/femp/financing/uescs_fupwgmeetings.cfm
October 24-26, 2005	Tenth National Green Power Marketing Conference Austin, TX	Department of Energy, EPA, Center for Resource Solutions, Austin Energy, Green Mountain Energy, Community Energy, and Sterling Planet	Best practices in green power product design, effective marketing strategies and tools for acquiring customers, defining renewable energy attributes and values, using green premiums to finance renewable energy projects, and the interplay of voluntary and compliance markets.	http://www.eere.energy.gov/greenpower/conference

Date	Event	Sponsor	Topic	WEBSITE
October 26-28, 2005	EEBA 2005 Excellence in Building Conference & Expo Colorado Springs, CO	Energy and Environmental Building Association	Water management systems, HVAC systems and testing, enclosure design elements, Energy Value Housing Awards, Leadership in Energy and Environmental Design, solar heating and water heating systems, green homes and durability, high performance green homes, exterior wall systems, indoor air quality, and green standards.	http://www.eeba.org/conference

MID-ATLANTIC

Date	Event	Sponsor	Topic	WEBSITE
September 6-7, 2005	Get It Right Utility Workshop Washington, D.C.	Department of Energy's Federal Energy Management Program	GSA contracting vehicles, services, utility acquisition, and Energy Center of Expertise.	http://www.eere.energy.gov/femp/newsevents/events.cfm
September 15, 2005	Competition and Reliability in North American Electricity Markets Washington, D.C.	U.S. – Canada Power System Outage Task Force	Independent study of the relationship among industry restructuring, competition in electric markets, and grid reliability.	http://www.energetics.com/meetings/reliability/pdfs/flier.pdf
October 5-7, 2005	CEM Preparatory Course: Theory and Practice of Energy Efficiency and Green Buildings Atlantic City, NJ	Association of Energy Engineers	CEM Preparatory Course: Theory and Practice of Energy Efficiency and Green Buildings	http://www.aeecenter.org

Date	Event	Sponsor	Topic	WEBSITE
October 7-16, 2005	Solar Decathlon Washington, D.C.	Department of Energy's Energy Efficiency and Renewable Energy Office, National Renewable Energy Laboratory, American Institute of Architects, National Association of Homebuilders, BP DIY Network and Sprint.	Eighteen colleges and university teams showcase houses they designed and built demonstrating advantages of utilizing solar energy for heating, cooling, hot water, lights, and appliances.	http://www.eere.energy.gov/solar_decathlon
October 11-12, 2005	Implementing Renewable Energy Projects Washington, D.C.	Department of Energy's Federal Energy Management Program	Passive solar technologies for heating, cooling and daylighting; solar water heating; solar preheating of ventilated air; photovoltaic and wind systems for remote or grid-tied power; building integrated photovoltaic systems; ground-source heat pumps for heating and cooling; design of low energy buildings; and biomass for CHP and heating.	http://www.eere.energy.gov/femp/newsevents/events.cfm
October 26, 2005	Department of Energy Management Awards Washington, D.C.	Department of Energy's Federal Energy Management Program	Annual award ceremony to recognize Federal agency and representatives' for outstanding contributions in saving energy in Federal facilities and operations	http://www.eere.energy.gov/femp/about/dema.cfm
October 27, 2005	Presidential Awards for Leadership in Federal Energy Management Washington, D.C.	Department of Energy's Federal Energy Management Program	Annual award ceremony honors Federal employees for supporting and leading efforts to promote and improve Federal energy management.	http://www.eere.energy.gov/femp/services/awards_presidential.cfm

Date	Event	Sponsor	Topic	WEBSITE
November 15, 2005	FEMP Lighting and Health Washington, D.C.	Department of Energy's Federal Energy Management Program	Correlation of lighting quality, biological health, eye health, and other employee health and safety issues with lighting energy efficiency and agency design standards.	http://www.eere.energy.gov/femp/newsevents/fulleventcfm/events_id=1465
December 13-15, 2005	Distributed Energy Program PEER Review Crystal City, VA	Department of Energy's Distributed Energy Program	Review and evaluate mission, goals, and objectives of each program in reference to national policies and priorities.	http://www.eere.energy.gov/femp/newsevents/fulleventcfm/events_id=1276
January 26-27, 2006	Energy for a Sustainable and Secure Future Washington, DC	National Council for Science and the Environment	Produces and disseminates a detailed report of recommendations developed by conference participants	http://www.ncseonline.org/NCSEconference

MIDWEST

Date	Event	Sponsor	Topic	WEBSITE
October 3, 2005	Inspiring Efficiency Awards Ceremony Chicago, IL	Midwest Energy Efficiency Alliance	Four categories of awards presented to organizations and companies that increased energy efficiency in the Midwest region.	http://www.mwalliance.org/energypros/activities/conference/2005/awards.php
October 3-4, 2005	Midwest Energy Solutions Conference Chicago, IL	Midwest Energy Efficiency Alliance	World energy trends, sustainable energy policy efforts in the Midwest, natural gas policy, integrated gasification combined cycle, appliance efficiency standards, energy efficiency investments, energy efficiency and agriculture, inspiring efficiency awards reception, carbon emissions, emission credits, demand response, and rural and electric coop perspective.	http://www.mwalliance.org/energypros/activities/conference/2005

Date	Event	Sponsor	Topic	WEBSITE
January 30-31, 2006	Better Buildings: Better Business Conference Wisconsin Dells, WI	Wisconsin Energy Star Homes, Energy Center of Wisconsin, and others	Strategic business practices, building performance for existing and new construction, heating, ventilating, air conditioning, health issues, managing moisture, implementing green and renewables, and emerging technologies.	http://www.ecw.org/betterbuildings

NORTHEAST

Date	Event	Sponsor	Topic	WEBSITE
September 7-9, 2005	Renewables Finance 2005 Wakefield, MA	Bingham McCutchen, Global Energy Decisions, Milbank, State Street and others.	Impact of *Energy Policy Act of 2005* on the current state-of-the-art in renewable finance, new profile of tax and other incentives, changes to PUHCA and PURPA, market regulatory reforms, and environmental provisions.	http://www.infocastinc.com/renew.html
October 25-27, 2005	6th Annual WADE Meeting / CHP Roadmap Workshop New York, NY	Department of Energy's Federal Energy Management Program	Track progress of CHP implementation in the U.S. toward the CHP Challenge Goal set in 1998.	http://www.eere.energy.gov/femp/newsevents/events.cfm
October 26-27, 2005	6th Annual CHP Roadmap Workshop New York, NY	Department of Energy and Environmental Protection Agency	Assess national progress toward 2010 goal of doubling CHP capacity in the U.S.	http://www.internationalchp-de.net
November 30, 2005	Scientific Innovations in Distributed Generation Boston, MA	TFI Learning and CIGRE	Renewable and alternative energy sources and devices, storage and heat management, systems integration and impact of DG on the transmission grid, interconnection and islanding operation, economics and market, developers and users, and policy drivers.	http://www.tfilearning.com/tfi/c/portal_public/layout?p_1_id=27.23

SOUTHEAST

Date	Event	Sponsor	Topic	WEBSITE
September 19, 2005	Rethinking Sustainable Construction 2006: Next Generation Green Buildings Sarasota, FL	Interface, Johnson Controls, and PPI Construction Management	Innovative, cutting-edge approaches and technologies for the building environment.	http://www.treeo.ufl.edu/rsc06
September 26, 2005	18th Annual Symposium on Healthcare Design Atlanta, GA	Facility Care and Toli	Health and welfare of patients and successful business outcomes through the design element.	http://www.hcaredesign.com
November 7-8, 2005	Building Materials Reuse and Recycling: Decon '05 Conference Atlanta, GA	U.S. EPA Region 9, Used Building Materials Association and many others.	Deconstruction, building materials reuse, and construction and demolition debris recycling.	http://www.doi.gov/greening/buildings/buildingconf.html

WESTERN

Date	Event	Sponsor	Topic	WEBSITE
September 29, 2005	FEMP Lighting and Health San Francisco, CA	Department of Energy's Federal Energy Management Program	Correlation of lighting quality, biological health, eye health, employee health and safety issues interface with lighting energy efficiency and agency design standards.	http://www.eere.energy.gov/femp/newsevents/events.cfm
October 17, 2005	High Performance, Low-Energy Laboratory Design Portland, OR	Department of Energy's and Environmental Protection Agency's Laboratories for the 21st Century Program	Architecture and engineering of high performance laboratories, air supply and distribution systems, laboratory exhaust systems and devices, controls and commissioning, lighting strategies, green design and emerging rating systems, case studies, resources, and tools.	http://www.eere.energy.gov/femp/newsevents/events.cfm

Date	Event	Sponsor	Topic	WEBSITE
October 18-20, 2005	Laboratories for the 21st Century (Labs21) Annual Conference Portland, OR	Department of Energy's and Environmental Protection Agency's Laboratories for the 21st Century Program	High-performance, low-energy laboratory design, onsite power, renewable energy applications, and new technologies.	http://www.eere.energy.gov/femp/newsevents/events.cfm
October 23, 2005	PV 101 Basic On-Grid Photovoltaics Hopland, CA	Solar Living Institute	Basics on how grid tie solar works, typical system designs for small grid tied photovoltaic systems, different grid options, siting, sizing, incentives, and cost analysis.	http://store.solarlivingstore.com/pv10baonph23.html
November 2-4, 2005	CEM Preparatory Course: Theory and Practice of Energy Efficiency and Green Buildings San Francisco, CA	Association of Energy Engineers	CEM Preparatory Course: Theory and Practice of Energy Efficiency and Green Buildings	http://www.aeecenter.org
November 9-11, 2005	Greenbuild International Conference & Expo Atlanta, GA	U.S. Green Building Council	Facilities management, government, green building activities, schools, international activities, Leadership in Energy and Environmental Design, new research, sustainable design and engineering.	http://www.greenbuildexpo.org
January 12-13, 2006	Pacific Rim Summit on Industrial Biotechnology Honolulu, HI	Biotechnology Industry Organization (BIO), State of Hawaii, University of Hawaii, Enterprise Honolulu and the Oceanic Institute	Marine biotech for industrial applications, bioplastics production from agriculture feedstocks, applications of industrial biotech to enhanced sustainability, and country specific bioenergy development strategies.	http://www.bio.org/pacrim

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